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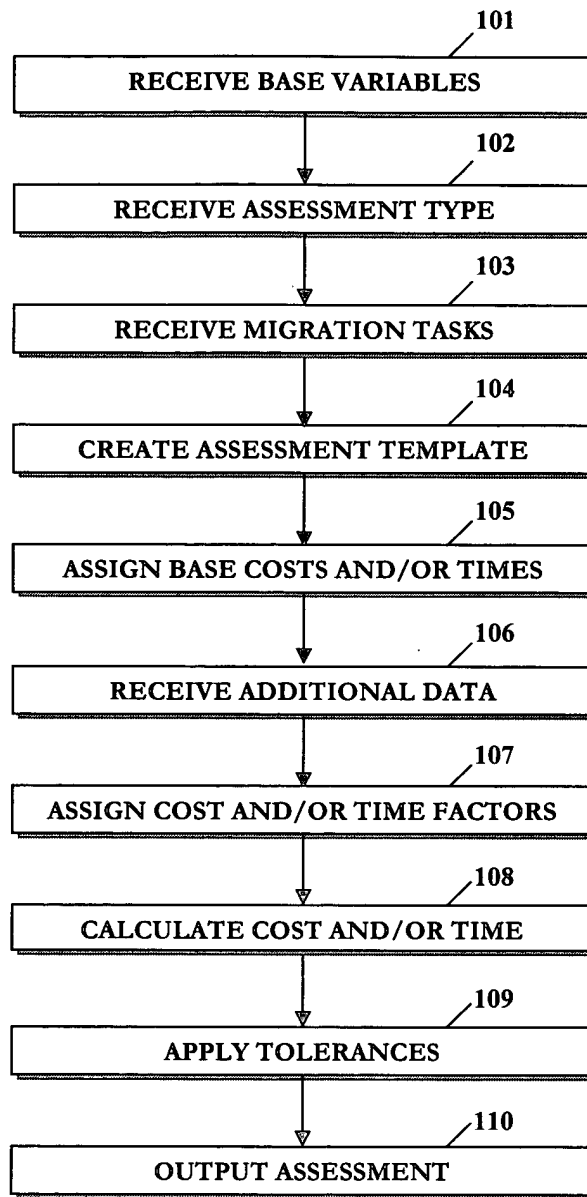


FIG. 1

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**ASSESSMENT TEMPLATE**

<b>Task No.</b>	<b>Migration Task</b>	<b>Estimated Cost</b>	<b>Estimated Time Requirement</b>
1	System Build	$f(c_1)$	$f(t_1)$
2	Baseline Test	$f(c_2)$	$f(t_2)$
3	Migration	$f(c_3)$	$f(t_3)$
4	System Test	$f(c_4)$	$f(t_4)$
5	Export Data	$f(c_5)$	$f(t_5)$
6	Import Data	$f(c_6)$	$f(t_6)$
7	Deployment	$f(c_7)$	$f(t_7)$
	<b>TOTALS</b>		

**FIG. 2**

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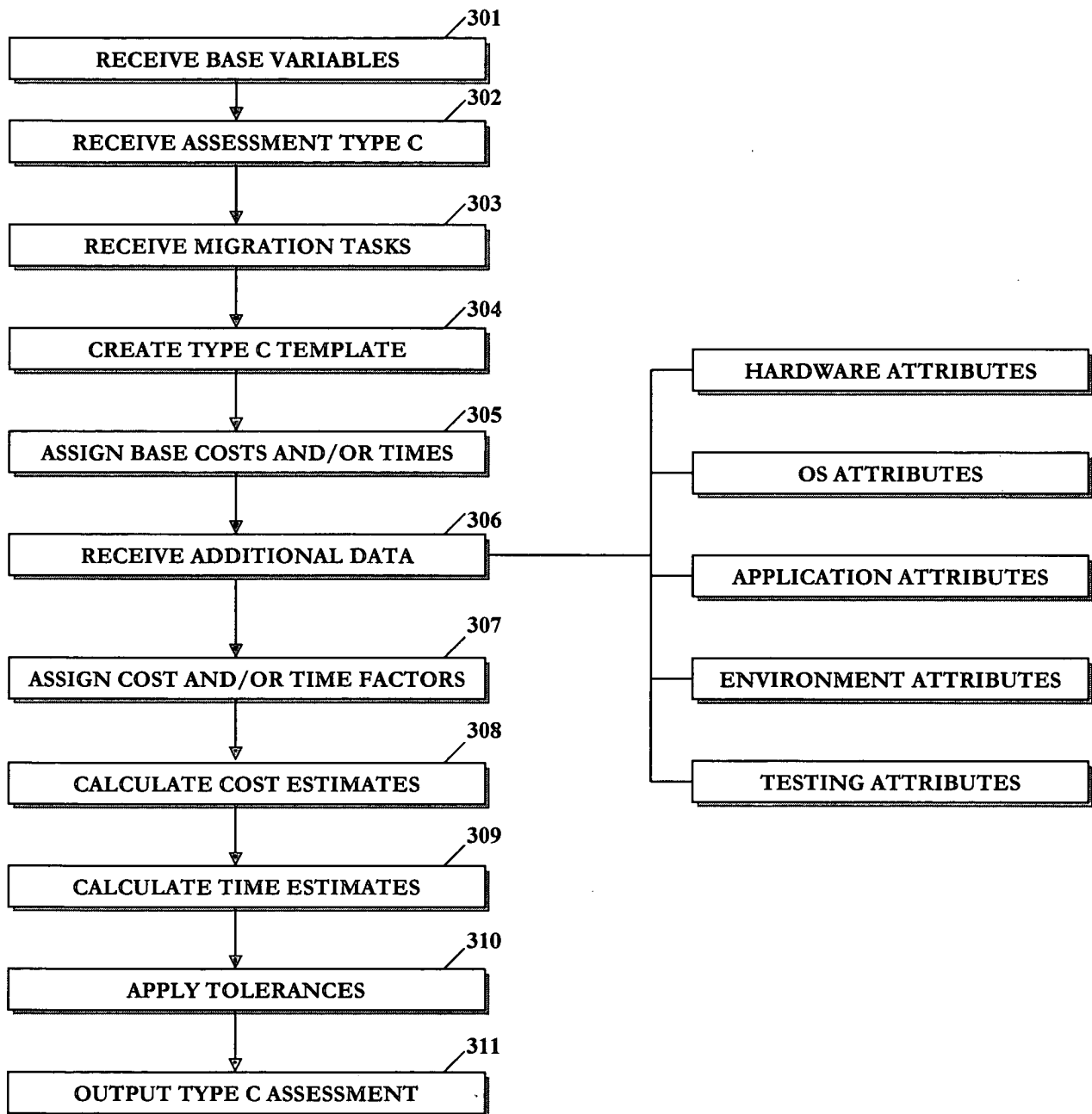


FIG. 3

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**BASE COST MATRIX**

<b>TASK NO.</b>	<b>MIGRATION TASK</b>	<b>AVERAGE BASE COST</b>
1	System Build	<sup>1</sup> β
2	Baseline Test	<sup>2</sup> β
3	Migration	<sup>3</sup> β
4	System Test	<sup>4</sup> β
5	Export Data	<sup>5</sup> β
6	Import Data	<sup>6</sup> β
7	Deployment	<sup>7</sup> β

**FIG. 4A**

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COMPLEXITY COST FACTOR MATRIX FOR {SOURCE-TARGET} COMBINATION				
TASK NO.	MIGRATION TASK	GENERIC UNIX to GENERIC UNIX	VMS/OpenVMS to GENERIC UNIX	GENERIC UNIX to .... UNIX VARIANT
1	System Build	$^1\lambda_{U-U}$	$^1\lambda_{VMS-U}$	$^1\lambda_{U-VAR}$
2	Baseline Test	$^2\lambda_{U-U}$	$^2\lambda_{VMS-U}$	$^2\lambda_{U-VAR}$
3	Migration	$^3\lambda_{U-U}$	$^3\lambda_{VMS-U}$	$^3\lambda_{U-VAR}$
4	System Test	$^4\lambda_{U-U}$	$^4\lambda_{VMS-U}$	$^4\lambda_{U-VAR}$
5	Export Data	$^5\lambda_{U-U}$	$^5\lambda_{VMS-U}$	$^5\lambda_{U-VAR}$
6	Import Data	$^6\lambda_{U-U}$	$^6\lambda_{VMS-U}$	$^6\lambda_{U-VAR}$
7	Deployment	$^7\lambda_{U-U}$	$^7\lambda_{VMS-U}$	$^7\lambda_{U-VAR}$

FIG. 4B

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HARDWARE COST FACTOR MATRIX  
FOR {SOURCE-TARGET} MIGRATION

TASK NO.	MIGRATION TASK	CLUSTERED to DISTRIBUTED	STANDARD CONN.to CUSTOM CONN.	MULTI PROCESSOR to SINGLE PROCESSOR	....	BIG ENDIAN to LITTLE ENDIAN
1	System Build	${}^1\bar{h}_1$	${}^1\bar{h}_2$	${}^1\bar{h}_3$	....	${}^1\bar{h}_k$
2	Baseline Test	${}^2\bar{h}_1$	${}^2\bar{h}_2$	${}^2\bar{h}_3$	....	${}^2\bar{h}_k$
3	Migration	${}^3\bar{h}_1$	${}^3\bar{h}_2$	${}^3\bar{h}_3$	....	${}^3\bar{h}_k$
4	System Test	${}^4\bar{h}_1$	${}^4\bar{h}_2$	${}^4\bar{h}_3$	....	${}^4\bar{h}_k$
5	Export Data	${}^5\bar{h}_1$	${}^5\bar{h}_2$	${}^5\bar{h}_3$	....	${}^5\bar{h}_k$
6	Import Data	${}^6\bar{h}_1$	${}^6\bar{h}_2$	${}^6\bar{h}_3$	....	${}^6\bar{h}_k$
7	Deployment	${}^7\bar{h}_1$	${}^7\bar{h}_2$	${}^7\bar{h}_3$	....	${}^7\bar{h}_k$

FIG. 5

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OS COST FACTOR MATRIX  
FOR {SOURCE-TARGET} MIGRATION

TASK NO.	MIGRATION TASK	WINDOWS NT	SUN SOLARIS	OS/400	VSE/ESA	IBM TPF	CICS	PC DOS	z/OS
1	System Build	${}^1\omega_1$	${}^1\omega_2$	${}^1\omega_3$	${}^1\omega_4$	${}^1\omega_5$	${}^1\omega_6$	${}^1\omega_7$	${}^1\omega_m$
2	Baseline Test	${}^2\omega_1$	${}^2\omega_2$	${}^2\omega_3$	${}^2\omega_4$	${}^2\omega_5$	${}^2\omega_6$	${}^2\omega_7$	${}^2\omega_m$
3	Migration	${}^3\omega_1$	${}^3\omega_2$	${}^3\omega_3$	${}^3\omega_4$	${}^3\omega_5$	${}^3\omega_6$	${}^3\omega_7$	${}^3\omega_m$
4	System Test	${}^4\omega_1$	${}^4\omega_2$	${}^4\omega_3$	${}^4\omega_4$	${}^4\omega_5$	${}^4\omega_6$	${}^4\omega_7$	${}^4\omega_m$
5	Export Data	${}^5\omega_1$	${}^5\omega_2$	${}^5\omega_3$	${}^5\omega_4$	${}^5\omega_5$	${}^5\omega_6$	${}^5\omega_7$	${}^5\omega_m$
6	Import Data	${}^6\omega_1$	${}^6\omega_2$	${}^6\omega_3$	${}^6\omega_4$	${}^6\omega_5$	${}^6\omega_6$	${}^6\omega_7$	${}^6\omega_m$
7	Deployment	${}^7\omega_1$	${}^7\omega_2$	${}^7\omega_3$	${}^7\omega_4$	${}^7\omega_5$	${}^7\omega_6$	${}^7\omega_7$	${}^7\omega_m$

FIG. 6

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APPLICATION COST FACTOR MATRIX FOR {SOURCE-TARGET} MIGRATION								
TASK NO.	MIGRATION TASK	REAL-TIME OPERATION	MISSION CRITICAL	OLTP	BATCH PROCESSING	DATA MINING	USER INTERACTIVE	PRODUXN CONTROL
1	System Build	$^1\alpha_1$	$^1\alpha_2$	$^1\alpha_3$	$^1\alpha_4$	$^1\alpha_5$	$^1\alpha_6$	$^1\alpha_n$
2	Baseline Test	$^2\alpha_1$	$^2\alpha_2$	$^2\alpha_3$	$^2\alpha_4$	$^2\alpha_5$	$^2\alpha_6$	$^2\alpha_n$
3	Migration	$^3\alpha_1$	$^3\alpha_2$	$^3\alpha_3$	$^3\alpha_4$	$^3\alpha_5$	$^3\alpha_6$	$^3\alpha_n$
4	System Test	$^4\alpha_1$	$^4\alpha_2$	$^4\alpha_3$	$^4\alpha_4$	$^4\alpha_5$	$^4\alpha_6$	$^4\alpha_n$
5	Export Data	$^5\alpha_1$	$^5\alpha_2$	$^5\alpha_3$	$^5\alpha_4$	$^5\alpha_5$	$^5\alpha_6$	$^5\alpha_n$
6	Import Data	$^6\alpha_1$	$^6\alpha_2$	$^6\alpha_3$	$^6\alpha_4$	$^6\alpha_5$	$^6\alpha_6$	$^6\alpha_n$
7	Deployment	$^7\alpha_1$	$^7\alpha_2$	$^7\alpha_3$	$^7\alpha_4$	$^7\alpha_5$	$^7\alpha_6$	$^7\alpha_n$

FIG. 7



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ENVIRONMENT COST FACTOR MATRIX FOR {SOURCE-TARGET} MIGRATION						
TASK NO.	MIGRATION TASK	128-bit SSL SECURITY	HTTP USAGE	COBOL	Custom Language Functions	
1	System Build	${}^1e_1$	${}^1e_2$	${}^1e_3$	....	${}^1e_p$
2	Baseline Test	${}^2e_1$	${}^2e_2$	${}^2e_3$	....	${}^2e_p$
3	Migration	${}^3e_1$	${}^3e_2$	${}^3e_3$	....	${}^3e_p$
4	System Test	${}^4e_1$	${}^4e_2$	${}^4e_3$	....	${}^4e_p$
5	Export Data	${}^5e_1$	${}^5e_2$	${}^5e_3$	....	${}^5e_p$
6	Import Data	${}^6e_1$	${}^6e_2$	${}^6e_3$	....	${}^6e_p$
7	Deployment	${}^7e_1$	${}^7e_2$	${}^7e_3$	....	${}^7e_p$

FIG. 8

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**BASE TIME REQUIREMENT MATRIX**

<b>TASK NO.</b>	<b>MIGRATION TASK</b>	<b>AVERAGE BASE TIME REQUIREMENT</b>
1	System Build	$^1_T$
2	Baseline Test	$^2_T$
3	Migration	$^3_T$
4	System Test	$^4_T$
5	Export Data	$^5_T$
6	Import Data	$^6_T$
7	Deployment	$^7_T$

**FIG. 9A**

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COMPLEXITY TIME FACTOR MATRIX

TASK NO.	MIGRATION TASK	GENERIC UNIX to GENERIC UNIX	VMS/OpenVMS to GENERIC UNIX	....	GENERIC UNIX to UNIX VARIANT
1	System Build	${}^1\psi_{U-U}$	${}^1\psi_{VMS-U}$	....	${}^1\psi_{U-VAR}$
2	Baseline Test	${}^2\psi_{U-U}$	${}^2\psi_{VMS-U}$	....	${}^2\psi_{U-VAR}$
3	Migration	${}^3\psi_{U-U}$	${}^3\psi_{VMS-U}$	....	${}^3\psi_{U-VAR}$
4	System Test	${}^4\psi_{U-U}$	${}^4\psi_{VMS-U}$	....	${}^4\psi_{U-VAR}$
5	Export Data	${}^5\psi_{U-U}$	${}^5\psi_{VMS-U}$	....	${}^5\psi_{U-VAR}$
6	Import Data	${}^6\psi_{U-U}$	${}^6\psi_{VMS-U}$	....	${}^6\psi_{U-VAR}$
7	Deployment	${}^7\psi_{U-U}$	${}^7\psi_{VMS-U}$	....	${}^7\psi_{U-VAR}$

FIG. 9B

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**HARDWARE TIME FACTOR MATRIX  
FOR {SOURCE-TARGET} MIGRATION**

<b>TASK NO.</b>	<b>MIGRATION TASK</b>	<b>CLUSTERED to DISTRIBUTED</b>	<b>STANDARD CONN.to CUSTOM CONN.</b>	<b>MULTI PROCESSOR to SINGLE PROCESSOR</b>	<b>BIG ENDIAN to LITTLE ENDIAN</b>
1	System Build	<sup>1</sup> <sub>Hc-D</sub>	<sup>1</sup> <sub>Hsc-CC</sub>	<sup>1</sup> <sub>HMP-SP</sub> . . . .	<sup>1</sup> <sub>HBE-LE</sub>
2	Baseline Test	<sup>2</sup> <sub>Hc-D</sub>	<sup>2</sup> <sub>Hsc-CC</sub>	<sup>2</sup> <sub>HMP-SP</sub> . . . .	<sup>2</sup> <sub>HBE-LE</sub>
3	Migration	<sup>3</sup> <sub>Hc-D</sub>	<sup>3</sup> <sub>Hsc-CC</sub>	<sup>3</sup> <sub>HMP-SP</sub> . . . .	<sup>3</sup> <sub>HBE-LE</sub>
4	System Test	<sup>4</sup> <sub>Hc-D</sub>	<sup>4</sup> <sub>Hsc-CC</sub>	<sup>4</sup> <sub>HMP-SP</sub> . . . .	<sup>4</sup> <sub>HBE-LE</sub>
5	Export Data	<sup>5</sup> <sub>Hc-D</sub>	<sup>5</sup> <sub>Hsc-CC</sub>	<sup>5</sup> <sub>HMP-SP</sub> . . . .	<sup>5</sup> <sub>HBE-LE</sub>
6	Import Data	<sup>6</sup> <sub>Hc-D</sub>	<sup>6</sup> <sub>Hsc-CC</sub>	<sup>6</sup> <sub>HMP-SP</sub> . . . .	<sup>6</sup> <sub>HBE-LE</sub>
7	Deployment	<sup>7</sup> <sub>Hc-D</sub>	<sup>7</sup> <sub>Hsc-CC</sub>	<sup>7</sup> <sub>HMP-SP</sub> . . . .	<sup>7</sup> <sub>HBE-LE</sub>

**FIG. 10**

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OS TIME FACTOR MATRIX  
FOR {SOURCE-TARGET} MIGRATION

TASK NO.	MIGRATION TASK	WINDOWS NT	SUN SOLARIS	OS/400	VSE/ESA	IBM TPF	CICS	PC DOS	Z/OS
1	System Build	${}^1\theta_1$	${}^1\theta_2$	${}^1\theta_3$	${}^1\theta_4$	${}^1\theta_5$	${}^1\theta_6$	${}^1\theta_7$	${}^1\theta_m$
2	Baseline Test	${}^2\theta_1$	${}^2\theta_2$	${}^2\theta_3$	${}^2\theta_4$	${}^2\theta_5$	${}^2\theta_6$	${}^2\theta_7$	${}^2\theta_m$
3	Migration	${}^3\theta_1$	${}^3\theta_2$	${}^3\theta_3$	${}^3\theta_4$	${}^3\theta_5$	${}^3\theta_6$	${}^3\theta_7$	${}^3\theta_m$
4	System Test	${}^4\theta_1$	${}^4\theta_2$	${}^4\theta_3$	${}^4\theta_4$	${}^4\theta_5$	${}^4\theta_6$	${}^4\theta_7$	${}^4\theta_m$
5	Export Data	${}^5\theta_1$	${}^5\theta_2$	${}^5\theta_3$	${}^5\theta_4$	${}^5\theta_5$	${}^5\theta_6$	${}^5\theta_7$	${}^5\theta_m$
6	Import Data	${}^6\theta_1$	${}^6\theta_2$	${}^6\theta_3$	${}^6\theta_4$	${}^6\theta_5$	${}^6\theta_6$	${}^6\theta_7$	${}^6\theta_m$
7	Deployment	${}^7\theta_1$	${}^7\theta_2$	${}^7\theta_3$	${}^7\theta_4$	${}^7\theta_5$	${}^7\theta_6$	${}^7\theta_7$	${}^7\theta_m$

FIG. 11

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APPLICATION TIME FACTOR MATRIX FOR {SOURCE-TARGET} MIGRATION									
TASK NO.	MIGRATION TASK	REAL-TIME OPERATION	MISSION CRITICAL	OLTP	BATCH PROCESSING	DATA MINING	USER INTERACTIVE	PRODUXN CONTROL	
1	System Build	${}^1D_1$	${}^1D_2$	${}^1D_3$	${}^1D_4$	${}^1D_5$	${}^1D_6$	.....	${}^1D_n$
2	Baseline Test	${}^2D_1$	${}^2D_2$	${}^2D_3$	${}^2D_4$	${}^2D_5$	${}^2D_6$	.....	${}^2D_n$
3	Migration	${}^3D_1$	${}^3D_2$	${}^3D_3$	${}^3D_4$	${}^3D_5$	${}^3D_6$	.....	${}^3D_n$
4	System Test	${}^4D_1$	${}^4D_2$	${}^4D_3$	${}^4D_4$	${}^4D_5$	${}^4D_6$	.....	${}^4D_n$
5	Export Data	${}^5D_1$	${}^5D_2$	${}^5D_3$	${}^5D_4$	${}^5D_5$	${}^5D_6$	.....	${}^5D_n$
6	Import Data	${}^6D_1$	${}^6D_2$	${}^6D_3$	${}^6D_4$	${}^6D_5$	${}^6D_6$	.....	${}^6D_n$
7	Deployment	${}^7D_1$	${}^7D_2$	${}^7D_3$	${}^7D_4$	${}^7D_5$	${}^7D_6$	.....	${}^7D_n$

FIG. 12

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ENVIRONMENT TIME FACTOR MATRIX FOR {SOURCE-TARGET} MIGRATION						
TASK NO.	MIGRATION TASK	128-bit SSL SECURITY	HTTP USAGE	COBOL	Custom Language Functions	
1	System Build	<sup>1</sup> X <sub>1</sub>	<sup>1</sup> X <sub>2</sub>	<sup>1</sup> X <sub>3</sub>	....	<sup>1</sup> X <sub>p</sub>
2	Baseline Test	<sup>2</sup> X <sub>1</sub>	<sup>2</sup> X <sub>2</sub>	<sup>2</sup> X <sub>3</sub>	....	<sup>2</sup> X <sub>p</sub>
3	Migration	<sup>3</sup> X <sub>1</sub>	<sup>3</sup> X <sub>2</sub>	<sup>3</sup> X <sub>3</sub>	....	<sup>3</sup> X <sub>p</sub>
4	System Test	<sup>4</sup> X <sub>1</sub>	<sup>4</sup> X <sub>2</sub>	<sup>4</sup> X <sub>3</sub>	....	<sup>4</sup> X <sub>p</sub>
5	Export Data	<sup>5</sup> X <sub>1</sub>	<sup>5</sup> X <sub>2</sub>	<sup>5</sup> X <sub>3</sub>	....	<sup>5</sup> X <sub>p</sub>
6	Import Data	<sup>6</sup> X <sub>1</sub>	<sup>6</sup> X <sub>2</sub>	<sup>6</sup> X <sub>3</sub>	....	<sup>6</sup> X <sub>p</sub>
7	Deployment	<sup>7</sup> X <sub>1</sub>	<sup>7</sup> X <sub>2</sub>	<sup>7</sup> X <sub>3</sub>	....	<sup>7</sup> X <sub>p</sub>

FIG. 13

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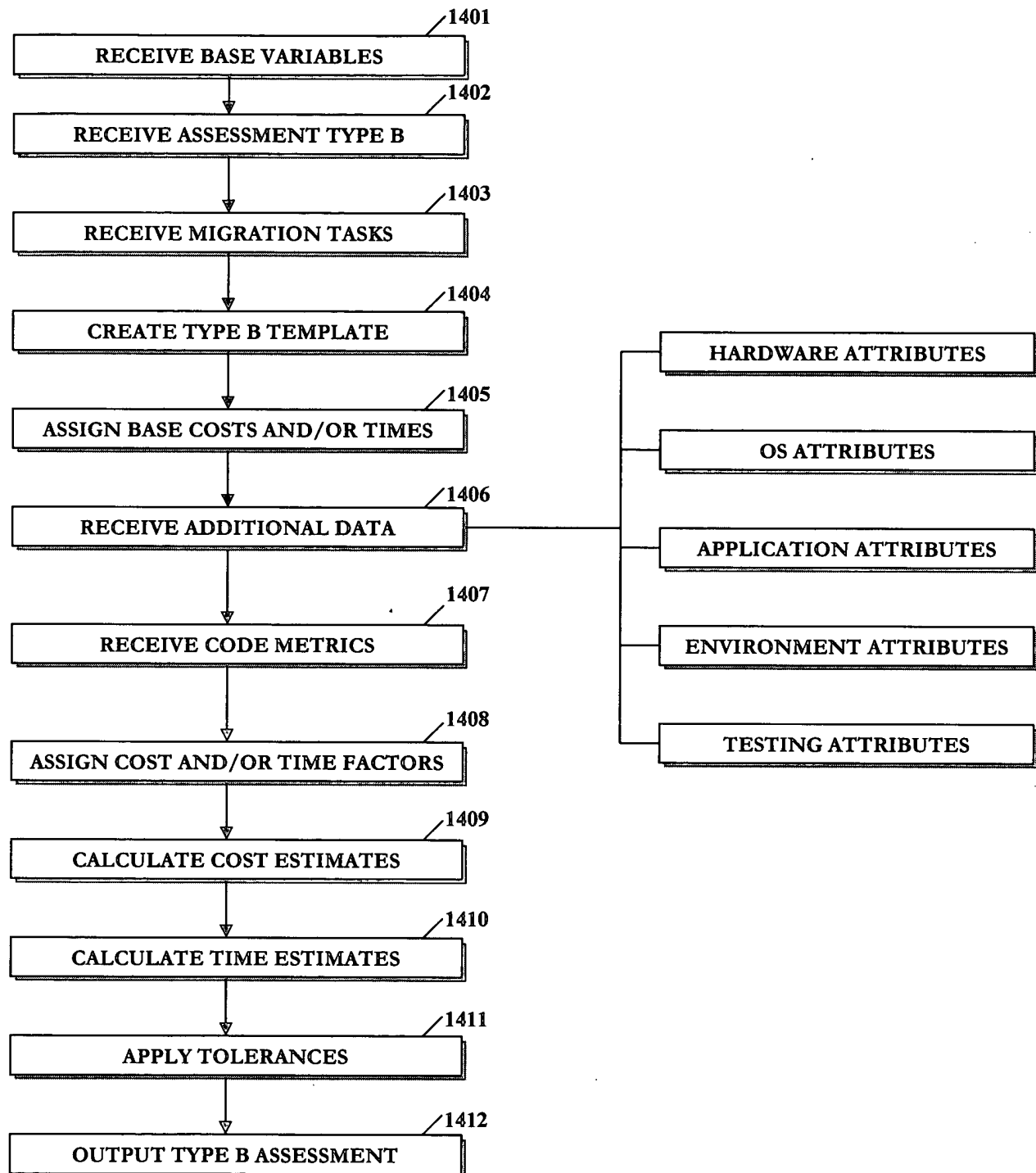


FIG. 14



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CODE COST FACTOR MATRIX FOR {SOURCE-TARGET} MIGRATION						
TASK NO.	MIGRATION TASK	OS DEP = YES	LOW INTEGRITY > AVERAGE	DATA VOL	Calls to Non-Standard Data Keywords	
1	System Build	<sup>1</sup> k <sub>1</sub>	<sup>1</sup> k <sub>2</sub>	<sup>1</sup> k <sub>3</sub>	....	<sup>1</sup> k <sub>q</sub>
2	Baseline Test	<sup>2</sup> k <sub>1</sub>	<sup>2</sup> k <sub>2</sub>	<sup>2</sup> k <sub>3</sub>	....	<sup>2</sup> k <sub>q</sub>
3	Migration	<sup>3</sup> k <sub>1</sub>	<sup>3</sup> k <sub>2</sub>	<sup>3</sup> k <sub>3</sub>	....	<sup>3</sup> k <sub>q</sub>
4	System Test	<sup>4</sup> k <sub>1</sub>	<sup>4</sup> k <sub>2</sub>	<sup>4</sup> k <sub>3</sub>	....	<sup>4</sup> k <sub>q</sub>
5	Export Data	<sup>5</sup> k <sub>1</sub>	<sup>5</sup> k <sub>2</sub>	<sup>5</sup> k <sub>3</sub>	....	<sup>5</sup> k <sub>q</sub>
6	Import Data	<sup>6</sup> k <sub>1</sub>	<sup>6</sup> k <sub>2</sub>	<sup>6</sup> k <sub>3</sub>	....	<sup>6</sup> k <sub>q</sub>
7	Deployment	<sup>7</sup> k <sub>1</sub>	<sup>7</sup> k <sub>2</sub>	<sup>7</sup> k <sub>3</sub>	....	<sup>7</sup> k <sub>q</sub>

FIG. 15

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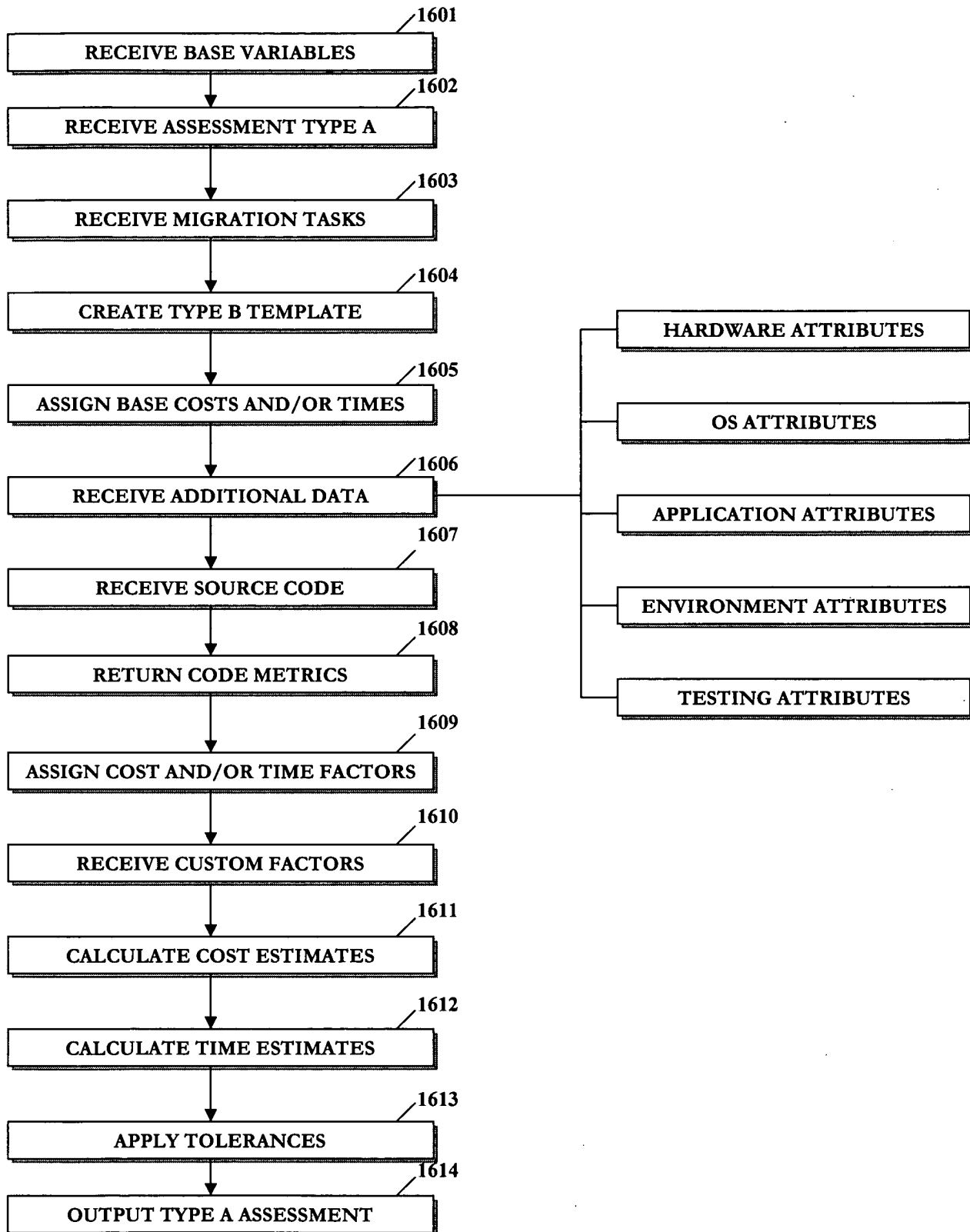


FIG. 16

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CODE TIME FACTOR MATRIX FOR {SOURCE-TARGET} MIGRATION						
TASK NO.	MIGRATION TASK	OS DEP = YES	LOW INTEGRITY > AVERAGE	DATA VOL	Calls to Non-Standard Data Keywords	
1	System Build	<sup>1</sup> m <sub>1</sub>	<sup>1</sup> m <sub>2</sub>	<sup>1</sup> m <sub>3</sub>	....	<sup>1</sup> m <sub>q</sub>
2	Baseline Test	<sup>2</sup> m <sub>1</sub>	<sup>2</sup> m <sub>2</sub>	<sup>2</sup> m <sub>3</sub>	....	<sup>2</sup> m <sub>q</sub>
3	Migration	<sup>3</sup> m <sub>1</sub>	<sup>3</sup> m <sub>2</sub>	<sup>3</sup> m <sub>3</sub>	....	<sup>3</sup> m <sub>q</sub>
4	System Test	<sup>4</sup> m <sub>1</sub>	<sup>4</sup> m <sub>2</sub>	<sup>4</sup> m <sub>3</sub>	....	<sup>4</sup> m <sub>q</sub>
5	Export Data	<sup>5</sup> m <sub>1</sub>	<sup>5</sup> m <sub>2</sub>	<sup>5</sup> m <sub>3</sub>	....	<sup>5</sup> m <sub>q</sub>
6	Import Data	<sup>6</sup> m <sub>1</sub>	<sup>6</sup> m <sub>2</sub>	<sup>6</sup> m <sub>3</sub>	....	<sup>6</sup> m <sub>q</sub>
7	Deployment	<sup>7</sup> m <sub>1</sub>	<sup>7</sup> m <sub>2</sub>	<sup>7</sup> m <sub>3</sub>	....	<sup>7</sup> m <sub>q</sub>

FIG. 17

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TESTING COST FACTOR MATRIX FOR {SOURCE-TARGET} MIGRATION							
TASK NO.	MIGRATION TASK	CREATE TESTS	APPLICATION RE-BUILD	OFF-SITE TESTING	PROGRESSIVE UNIT TESTS	NON-STANDARD CRITERIA	CUSTOM H/W SIMULATION
2	Baseline Test	${}^2\eta_1$	${}^2\eta_2$	${}^2\eta_3$	${}^2\eta_4$	${}^2\eta_5$ ....	${}^2\eta_r$
4	System Test	${}^4\eta_1$	${}^4\eta_2$	${}^4\eta_3$	${}^4\eta_4$	${}^4\eta_5$ ....	${}^4\eta_r$

FIG. 18

TESTING TIME FACTOR MATRIX FOR {SOURCE-TARGET} MIGRATION									
TASK NO.	MIGRATION TASK	CREATE TESTS	APPLICATION RE-BUILD	OFF-SITE TESTING	PROGRESSIVE UNIT TESTS	NON-STANDARD CRITERIA	CUSTOM H/W SIMULATION		
2	Baseline Test	$2_{b1}$	$2_{b2}$	$2_{b3}$	$2_{b4}$	$2_{b5}$	....	$2_{br}$	
4	System Test	$4_{b1}$	$4_{b2}$	$4_{\eta3}$	$4_{b4}$	$4_{b5}$	....	$4_{br}$	

FIG. 19